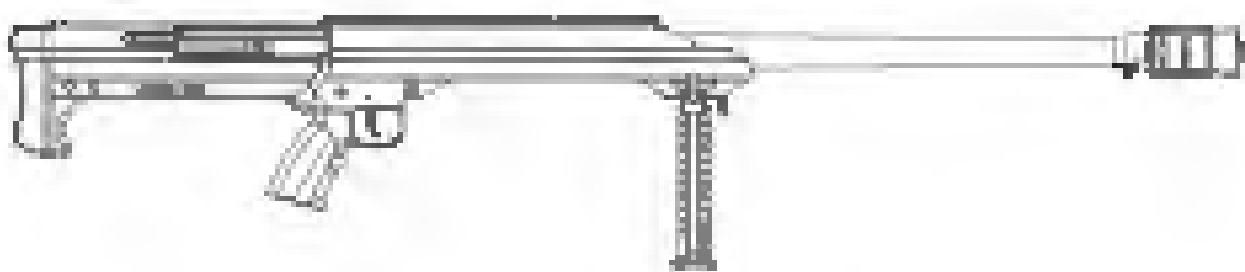




# Model 99



**Operator's Manual**

October 13, 2006



## USE OF THIS MANUAL

Before you handle the Model 94 rifle, read this manual in its entirety. It is important that you understand the principles of safe gun handling in general and the unique features of this rifle. This manual is not a substitute for training from a qualified instructor. Important safety topics are discussed in this chapter and throughout this manual. This manual should remain with the rifle and it should be transferred with the rifle to subsequent owners. It will be replaced at no cost by contacting the manufacturer.

This manual covers all variants of the Model 94. Technical specifications are subject to change without notice.

## SAFETY GUIDELINES

### **WARNING**

*Failure to follow safety guidelines may cause injury or death.*

### Ammunition

Gatton does not endorse the use of handloaded, remanufactured, or surplus ammunition. The use of clean, dry and smooth slow-combustion manufactured ammunition will preserve your warranty.

### Safety distance

The .416 Barrett and .50 BMG cartridges are identical in construction to an ordinary centerfire rifle cartridge. Bullets fired from this rifle may travel as far as 5 miles. Make certain that you have an adequate backdrop.

### Hunting protection

Hearing loss is permanent. Hearing loss from gunfire is cumulative, but the noise from even one shot may cause permanent loss. Wear both earplugs and eye shields. It is also your responsibility to protect the hearing of those around you. The muzzle brake is integral to the design of your rifle and works to divert a large portion of a bullet's blast forward and to the sides of the muzzle. Your rifle must not be fired without it. People and objects should not be in the vicinity of the muzzle brake because its blast consists of high pressure, high temperature gas. All spectators should wear double hearing protection. The safest place for a spectator is directly behind the shooter.

## **Eye protection**

Eye protection should be worn when both shooting and maintaining your rifle. It is normal for firing to generate muzzle blast and debris. Glasses also protect you from exposure during recoil. Protect your eyes from solvents and unsecured parts under spring pressure while performing maintenance on your rifle.

## **Assume the every gun is loaded**

Unless you personally know otherwise, treat every gun as if it were loaded. Do not trust your memory and do not take anyone else's word for it. Look and feel for an empty chamber. Do not trust the extractor to indicate an empty chamber.

## **Beware of barrel obstructions**

Ensure the barrel bore is free of obstructions before you fire your rifle. Even the smallest obstruction such as a bullet punch or even grease will cause dangerously increased pressures that can rupture the barrel.

## **Use your muzzle brake**

Your rifle was designed to be fired with the muzzle brake installed. Firing your rifle without the muzzle brake will subject your rifle and its accessories to damage/recoil. It could also cause the shooter to be injured.

## **Muzzle control**

Always keep the muzzle pointed in a safe direction. Never allow your muzzle to point at anything that you do not intend to shoot.

## **Keep your finger off the trigger**

Keep your finger off the trigger and out of the trigger guard until your sights are aligned on your target and you intend to fire.

## **Keep your safety on**

Keep your safety on until your sights are aligned on your target and you intend to fire.

## **Identify your target and backstop**

Before you pull the trigger, make certain of your target and what is beyond it. The rifle should never be fired at surfaces where bullets are likely to glance off in unpredictable directions.

## **Failure to fire**

If your rifle fails to fire when you pull the trigger, do not tilt the bolt handle to open the action. Keep the rifle pointed toward a safe area and wait 2 minutes. If a magazine (primer ignition) has occurred, the round will probably fire within two minutes. If the round does not fire, remove and inspect the cartridge. If the primer is seated properly, discard it in a safe manner. If the primer is lightly dented, refer to the troubleshooting chart in this manual.

## **Maintain your rifle properly**

Performing proper maintenance, as outlined in this manual, insures that your rifle will be safe to shoot and will perform to design specification for many years. Alterations, modifications or adjustments may damage your rifle, make it unsafe to fire and will void warranty claims.

## **Store your rifle safely**

Even though your rifle represents a significant financial investment, the greatest value in keeping it secured is preventing it from falling into the hands of a child, a trespasser, thief, or a fool. It is your responsibility to take every reasonable precaution to secure your rifle.

## **Alcohol, medications and drugs**

Do not handle or operate your rifle under the influence of alcohol, medication or drugs.

## **WARRANTY AND SERVICE**

Benelli Firearms Manufacturing Inc. (BFMI), warrants that this firearm was manufactured free of defects in materials and workmanship. For one year from the date of purchase by the original owner, BFMI agrees to correct any defect in this firearm for the original purchaser by repair or replacement with the same or comparable model.

BFMI will not be responsible for injury, death, or damage to property resulting from either intentional or accidental discharge of this firearm or from its function when used for purposes or subjected to treatment for which it was not designed. BFMI will not honor claims involving this firearm which result from corrosion or improper handling, unauthorized adjustment or parts replacement, corrosion, neglect, the use of the wrong caliber ammunition, or the use of other than commercially manufactured ammunition in good condition, or any combination thereof. BFMI will not honor claims involving this firearm when such claims are made by the second or subsequent owner.

If you need factory service, whether made under warranty or not, please contact BFMI for instructions on how to have your gun repaired.

**Benelli Firearms Manufacturing Inc.**

P.O. Box 1077  
Memphis, TN 37113-1077  
415-886-2936

[www.benelliusa.com](http://www.benelliusa.com)

## **Your Responsibility**

Your Benelli rifle is well-engineered and manufactured to the highest standards. It was proof-fired and carefully inspected before it was packaged and shipped from our factory. Its safe use depends on you alone. You are the ultimate safety device. Much like other mechanical devices, such as electric power tools, gas-powered lawn equipment, and automobiles, your rifle is safe unless handled in an irresponsible or uneducated manner.

## **TABLE OF CONTENTS**

<b>Use of the manual</b>	<b>2</b>
<b>Safety</b>	<b>24</b>
<b>Warranty and service</b>	<b>3</b>
<b>Table of contents</b>	<b>4</b>
<b>Specifications</b>	<b>7</b>
<b>Contents</b>	<b>8</b>
<b>Function</b>	<b>9</b>
<b>Break-in</b>	<b>9</b>
<b>Loading</b>	<b>9-10</b>
<b>Unloading and clearing</b>	<b>11</b>
<b>Disassembly and assembly</b>	<b>12</b>
<b>Major components</b>	<b>12</b>
<b>Disassembly and major components</b>	<b>13-14</b>
<b>Reassembly of major components</b>	<b>14</b>
<b>Removal of long pin assembly</b>	<b>15-16</b>
<b>Removal of ejector and extractor</b>	<b>17-18</b>
<b>Installation of ejector and extractor</b>	<b>19-20</b>
<b>Cleaning and lubrication</b>	<b>21</b>
<b>Cartridge ammunition</b>	<b>22</b>
<b>Blank</b>	<b>23</b>
<b>Troubleshooting</b>	<b>24</b>
<b>Exploded views and parts lists</b>	<b>25-26</b>
<b>Blank</b>	<b>29</b>

## SPECIFICATIONS

### GARRETT MODEL 99

#### GAUBERS

410 Bore or .60 BMG

#### BARREL LENGTHS

#### OVERALL LENGTH

#### WEIGHT

32 inches heavy

50 inches

25 pounds

30 inches tuned

47 inches

22 pounds

25 inches tuned

43 inches

20 pounds

#### TWIST RATE

410 Bore: 1 turn in 12 inches, right hand

.60 BMG: 1 turn in 15 inches, right hand

#### SAFETY

Manual, thumb lever

#### SAFETY RANGE RECOMMENDED

3 miles

#### SCOPE RAIL

Steel, swivel with base. M1913 spec, 13.75 inches long

#### CARRYING CASE LENGTH

60 inches

#### CARRYING CASE WIDTH

16 inches

#### CARRYING CASE DEPTH

6 inches

#### CARRYING CASE WEIGHT

24 pounds

#### SCOPE AND RAILS WEIGHT

2.0 pounds (approx)

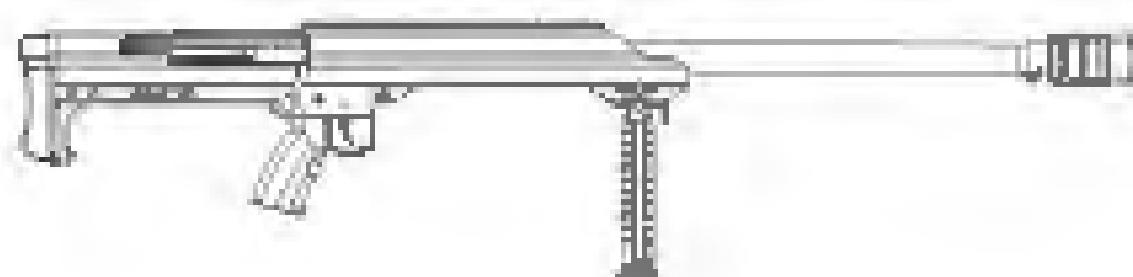


Figure 1. Model 99 with 32" heavy barrel

## CONTENTS

Your Model 99 rifle includes the following:

- Rifle with bipod
- Weather-tight and airtight carrying case
- Operator's manual

Your rifle may have included a rifle scope and rings. It may have also included cleaning tools and a cleaning kit.

The rifle is shipped from the factory fully assembled. (Figure 2.)

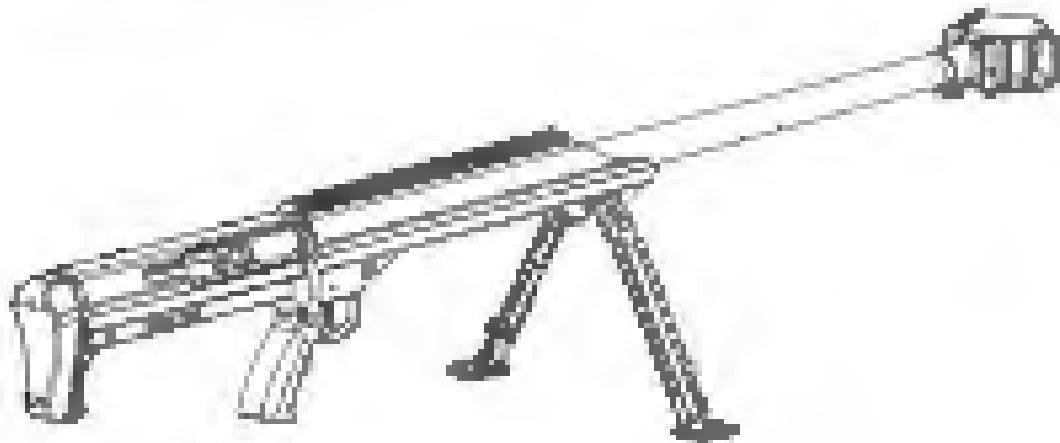


Figure 2. Fully assembled rifle.

## FUNCTION

The Model 99 is a single shot, bolt action rifle. The shooter manually loads one single cartridge. The firing pin assembly is cocked when the bolt handle is raised. The bolt is retained in the receiver and is equipped with an extractor to remove a cartridge or shell casing. A manually operated safety prevents无意的 trigger movement.

## BREAK-IN PROCEDURE

Because individual barrels, powder, primer and bullet combinations vary widely and because shooters have strongly held personal opinions on the subject, Remington does not offer a specific procedure for barrel break-in. Remington does recognize that a clean barrel shoots better. Remington recommends that you do not overheat your barrel, especially your new barrel. Experience has shown that the bore becomes less prone to fouling over time and that accuracy may improve as the barrel

## LOADING

1. Rotate the safety lever to the "SAFE" (never horizontal) position. (Figure 3.)

### **WARNING**

Do not attempt to force a cartridge into the chamber by forcing the bolt closed. If the bolt will not close easily, remove the cartridge and examine it for damage or defects. Check the chamber for obstructions.

2. With the rifle pointed in a safe direction, hit the bolt handle and draw it to the rear (Figure 4, step A.). Insert a cartridge into the ejection port (Figure 4, step B.). Push the lock handle fully forward (Figure 4, step C.) and then downward (Figure 4, step D.).

### **WARNING**

The shooter must be positioned directly behind the rifle with the recoil pad held firmly against the shoulder. Firing the rifle in any other position could result in injury by contact with the rifle or rifle scope.

### **WARNING**

Do not fire the rifle unless all three assembly pins are secured in place. Severe injury will result by firing the rifle without these pins in place.

3. The rifle may now be fired by rotating the safety lever to the "FIRE" (never vertical) position (Figure 5.) and then pulling the trigger.

## SAFETY

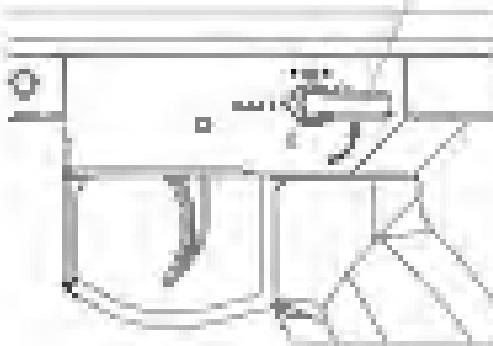


Figure 3. Safety lever to "SAFE".

## CALIBRATION

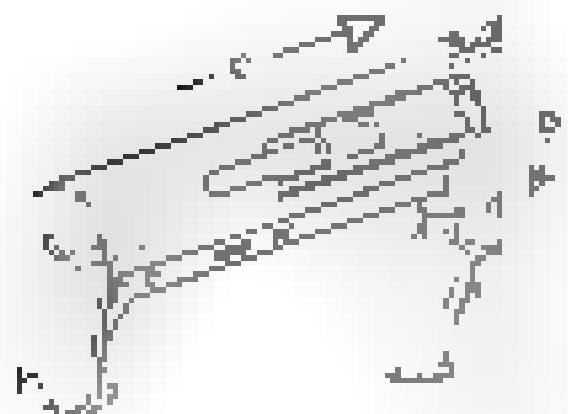
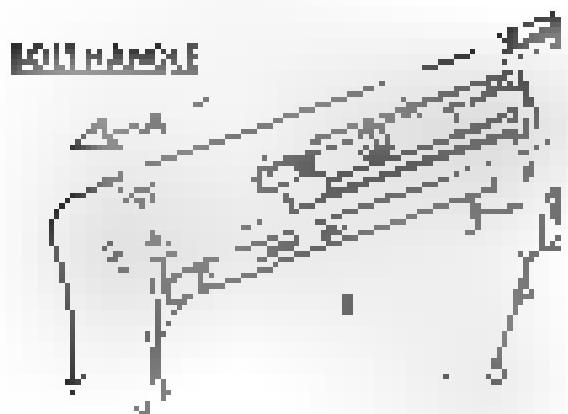


Figure 5: Logging acquisition



Figure 6: Schematic view to TAME

## **L1 LOADING AND CLEARING**

**1 Place the safety lever in the "SAFE" position.**

**a. Let the bolt handle forward and pull it to the rear to eject a chambered cartridge or spent shell casing.**

**b. With the bolt pulled fully to the rear look into the chamber to make sure that the cartridge or shell casing has been removed. Then a finger may be used to verify the empty chamber.**

## DISASSEMBLY AND ASSEMBLY

### WARNING

Unplug the charger cable before disassembly. Failure to do so may result in damage to the power adapter, the unit, and the user. Exercise care when handling the unit as it contains sharp edges.

The rifle may be disassembled into 5 major components by removing 3 assembly pins and 2 rapid assembly pins (Figure 8).

#### Major components:

Recoil assembly (1)

Barrel assembly (2)

Trigger housing assembly (3)

Grip assembly (4)

Front assembly (5)

#### Assembly pins:

Assembly pins (6)

Rapid assembly pins (7)

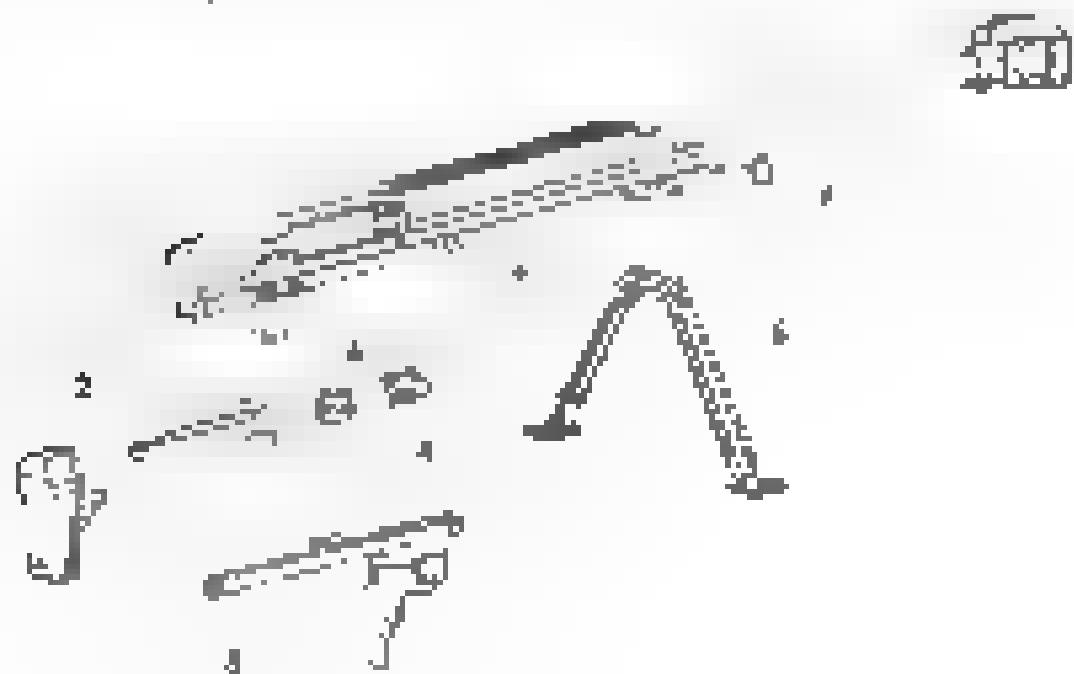


Figure 8. Major components.

## **Disassembly into major components**

Only follow up until the time the slide has been ejected forward

- Push the top release button and move the barrel (Figure 7) to the rear. Remove the top rear assembly pin and the forward assembly pin (Figure 7 step B)

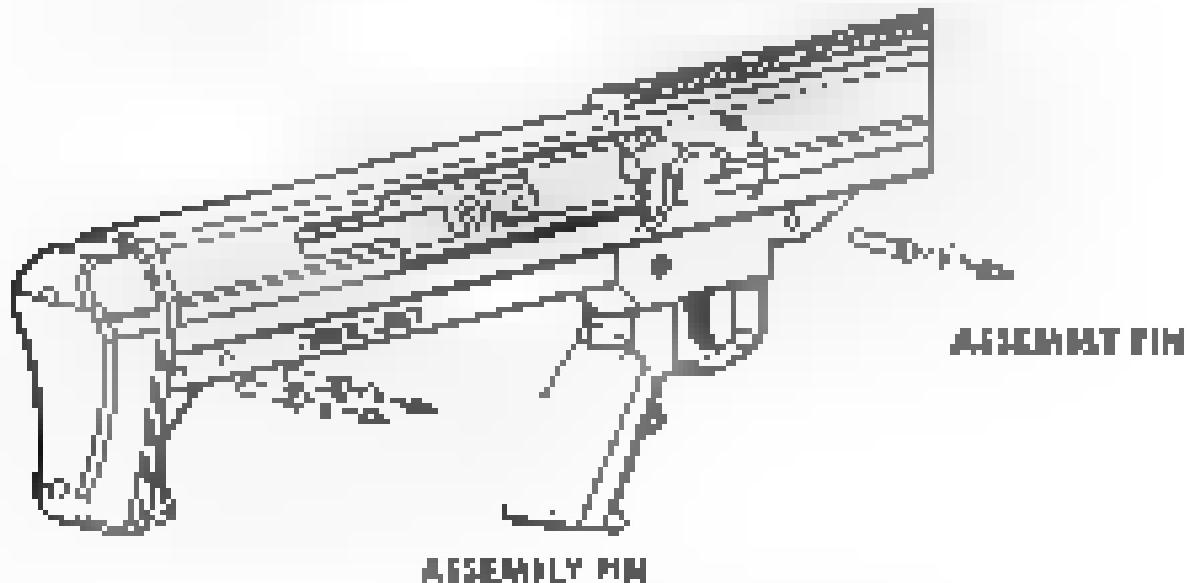
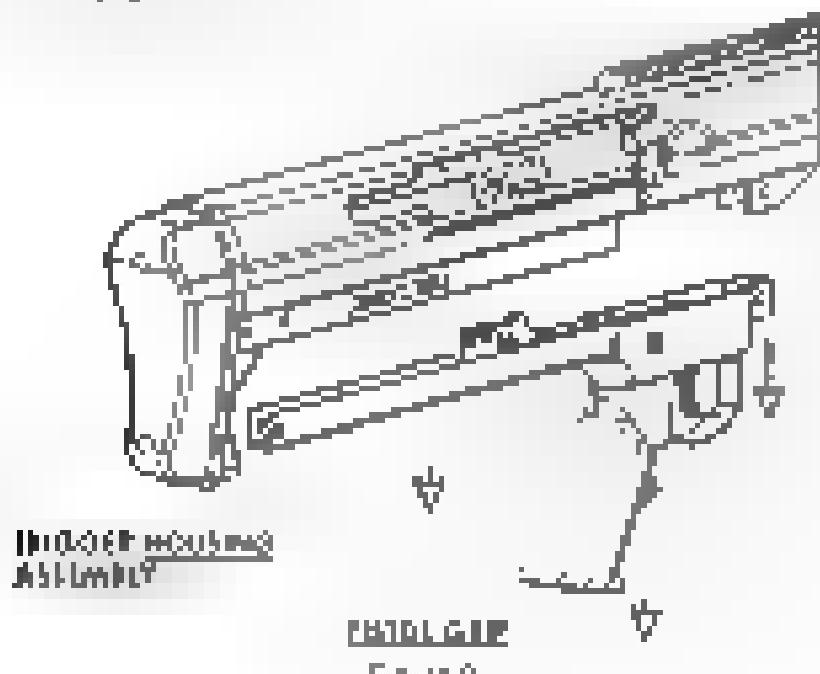


Figure 7

Remove the trigger housing assembly by pulling the pin and removing it from the receiver. (Figure 8.)



TRIGGER ASSEMBLY

Figure 8.

**NOTE**

No further disassembly of the trigger housing assembly is recommended or necessary, for maintenance.

**NOTE**

The firing pin assembly is secured by driving the snap hinge. Disassembly is indicated by removing the bolt handle with the firing pin assembly cocked. The firing pin assembly can be selectively unlocked by releasing the bolt handle immediately after it is being removed. If this occurs, the firing pin assembly may be relocked prior to the bolt assembly removal or the receiver assembly. Carefully drive a screw driver through the body of the cylinder assembly and hold the cylinder assembly steady while driving the screw driver into the body of the cylinder assembly. See figure 3, parts 2 and 4.

4. Remove the bolt handle and the bolt handle assembly retained to remove it from the receiver assembly.
5. Grasp the bolt handle and withdraw it from the barrel. Detach the bolt so that the locking lug will align with the cylinder body and cylinder base. Remove the bolt from the receiver.
6. Lift the front of the receiver to remove the gun's weight from the bipod legs. Pull the bipod assembly (one bipod leg and one bipod base) apart.

**Reassembly of major components**

Major components are assembled in reverse order of disassembly.

## Removal of firing pin assembly from bolt assembly

### NOTE

The firing pin assembly must be oriented so that the detent pin is positioned into the cocking piece slot. The firing pin assembly is locked when the cocking piece is outside of the case slot. (See Figure 9.)

FIGURE 9



Figure 9. Cocked firing pin assembly.

Open or disassemble the bolt by pulling apart through. The assembly pin may require extraction and rotating as the pin is inserted. (Figure 10) (See A). To reassemble, align the cocking piece around and the firing pin assembly.

### WARNING

Do not remove the assembly pin from the cocking piece because you will lose the firing pin assembly as removed from the bolt. The firing pin spring is under extreme stress. Strain injury could result if the assembly is not handled carefully.

- Open the bolt handle. Turn the locking piece until it is horizontal to remove it from the bolt assembly. (Figure 10 step 2)



Figure 10

- 3 Separate the firing pin assembly from the bolt assembly. (Figure

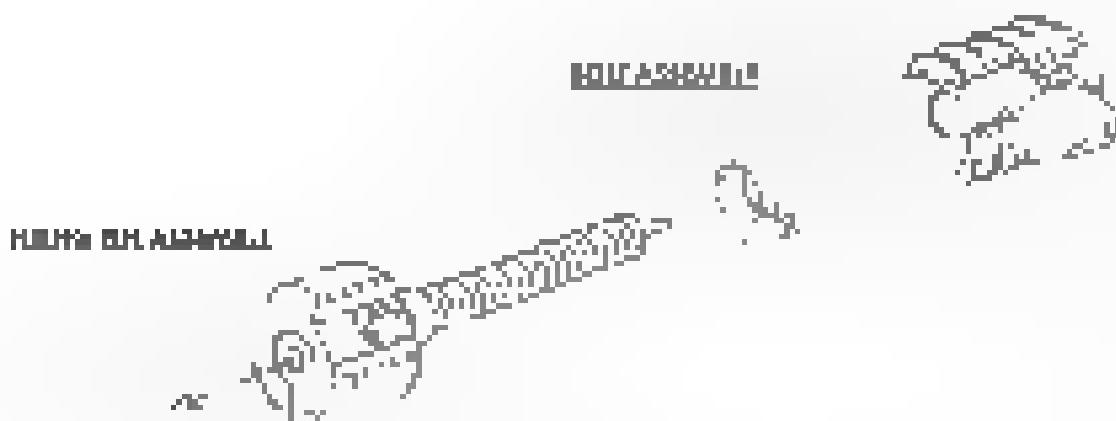


Figure 11

**NOTE**  
No further disassembly of the firing pin assembly is recommended as necessary  
for maintenance.

### Installation of Firing pin assembly into bolt assembly

Reassemble the firing pin assembly into the bolt assembly in the reverse order of its removal.

## Removal and replacement of a sector and extractor

### **NOTE**

The extractor & under spring assembly is held in place by the extractor pins. Use caution when removing the sector pins.

### **NOTE**

Removal and replacement of the sectors pin requires the use of a hammer and a 1/2" dia. drift punch. It is also recommended to use a piece of wood.

### **NOTE**

The sector necks, sector and their springs are not sturdy to pull. If the clip fails to extract or snap, rule out other causes before attempting this procedure. It is not necessary to remove the clutch or the sector for the bearing maintenance. Their removal is to facilitate parts replacement only. If you are not confident in your skills, then call your local dealer or a professional technician.

### **Extractor removal**

1. Hold the bolt face firmly against a flat work surface. Drive the sector pin out of the bolt with a 1/2" drift (Figure 12-400 A). The head of the sector spring will escape from the bolt after the punch is removed from the sector pin hole.
2. Lift the bolt from the work surface and remove the sector and extractor spring. (Figure 12-400 B).

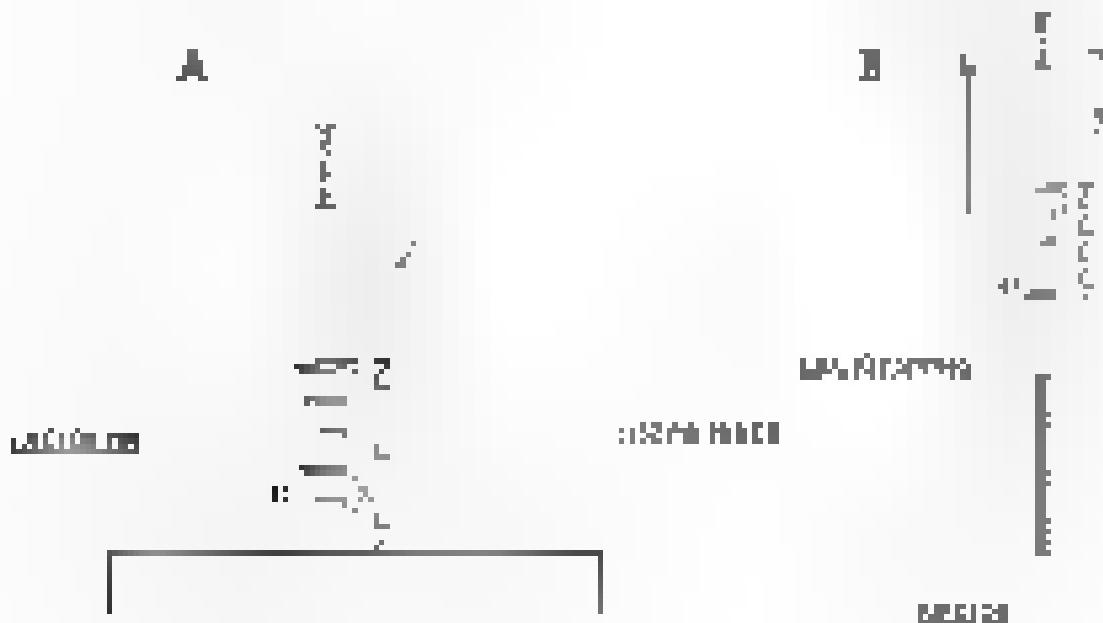


Figure 12

### **Extractor removal**

- 1 Using a 1/32 or smaller punch gently off the end of the extractor spring away from the bolt face in the spring retainer (D) to obtain the extractor (Figure 13).



Figure 13

- 2 Slide the extractor moving forward over the extractor spring in close of the bolt assembly (Figure 14) (Right). Note that the end of the extraction spring is bent slightly toward the extractor.



Figure 14

- 3 Lift the extractor out of the assembly in the bolt. (Figure 15).



Figure 15

## EJECTOR INSTALLATION

The installation of the ejector is in reverse order of its removal.

### Ejector Installation

1. Place the ejector spring in the ejector spring housing (figure 16, step A). The housing can be seen below.

- Push the disc into the ejector housing (Figure 16 step B). Orient the ejector so that the ejector's pin slot is facing toward the bell.

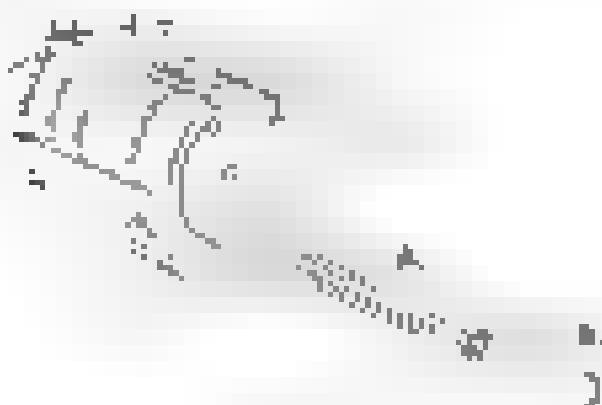


Figure 16

Push the rim of a shot casting under the bellows until the bottom rim of the shell comes in contact with the bell base (Figure 17).

### Bell Casting



Figure 17

4. Getting through the bore of the cartridge, position the bullet pin so it passes so that the ejection pin hole is clear. While depressing the ejector with a cartridge case, driven a punch through one side of the ejection pin hole leaving room for the cartridge pin to be inserted from the opposite side. (Figure 18) (M20-2) The punch holds the ejector in place until the ejection pin has been inserted from the opposite side. (Figure 19) (M20-3) When a 3/32 punch driven driving the ejection pin will be flush with the ball's ejection pin recess.



Figure 18

## CLEANING AND LUBRICATION

### **WARNING**

Always wear eye protection before cleaning.

### **CAUTION**

Do not insert cleaning tools through the muzzle. The thermal crown could be damaged and could severely damage the accuracy of the rifle.

### **NOTICE**

To protect the rifle from corrosion, the rifle and the interior of the carrying case should be thoroughly cleaned and packed in the carrying case for storage.

### Cleaning procedure

1. The rifle should be cleaned and lubricated after each shooting session. Regular cleaning between fire combat & periods of inactivity.

After shooting switch to a one-word brush and clean the carrier. Carrier Heavy Bone Cleaner is recommended.

Switch cleaning solvent to a bone brush and clean the bore. Gunsmith Heavy Bone Cleaner is recommended.

4. Open the magazine plate and pull plunger through gas tube assembly. It is best to clear the muzzle break at the same time the barrel is being cleaned as the bore cleaner will help remove debris from the bore.

5. Clean the magazine with bore cleaner. If possible, try to remove carbon from both the selector and the sear. Depress the sear and selector by hand to help them dislodge better.

6. Use dry solvent as necessary to remove oxygen from the bore and chamber.

Clean the remainder of the rifle with carrier-grade solvent. Remove dust, debris and sage. Make sure all metal surfaces are coated with preservative oil.

## **Corrosive ammunition cleaning procedure**

### **CAUTION**

Burns from handling or handling cleaning components. Cleaning  
components deterioration may damage your firearm. Clean up due to firing  
corrosive ammunition must be safely handled with H2O2 + HCl (3% - 5%) after the  
ammunition is handled.

### **CAUTION**

Rust will begin to form on bare metal relatively quickly on exposed areas unless  
unless rust preventive oil or light oil is applied immediately.

If you have been forced by necessity or have accidentally fired corrosive  
ammunition, the following additional cleaning procedure should be used:

Cleaning. Immediately after firing the corrosive ammunition thoroughly brush  
the bore and bolt face with very hot soapy water or cleaner specifically designed  
for corrosive ammunition.

- 1. Rinsing and drying. When the shield is clean rinse the surfaces with very hot  
water. This is best performed. The residual heat of the shield will dry it and prevent  
rust from developing.
- 2. Protecting. After rinsing, dry the rifle using procedures specified by  
non-corrosive ammunition, or if temporary transportation or storage is necessary,  
all methods, both in the field and at home.

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## TROUBLESHOOTING

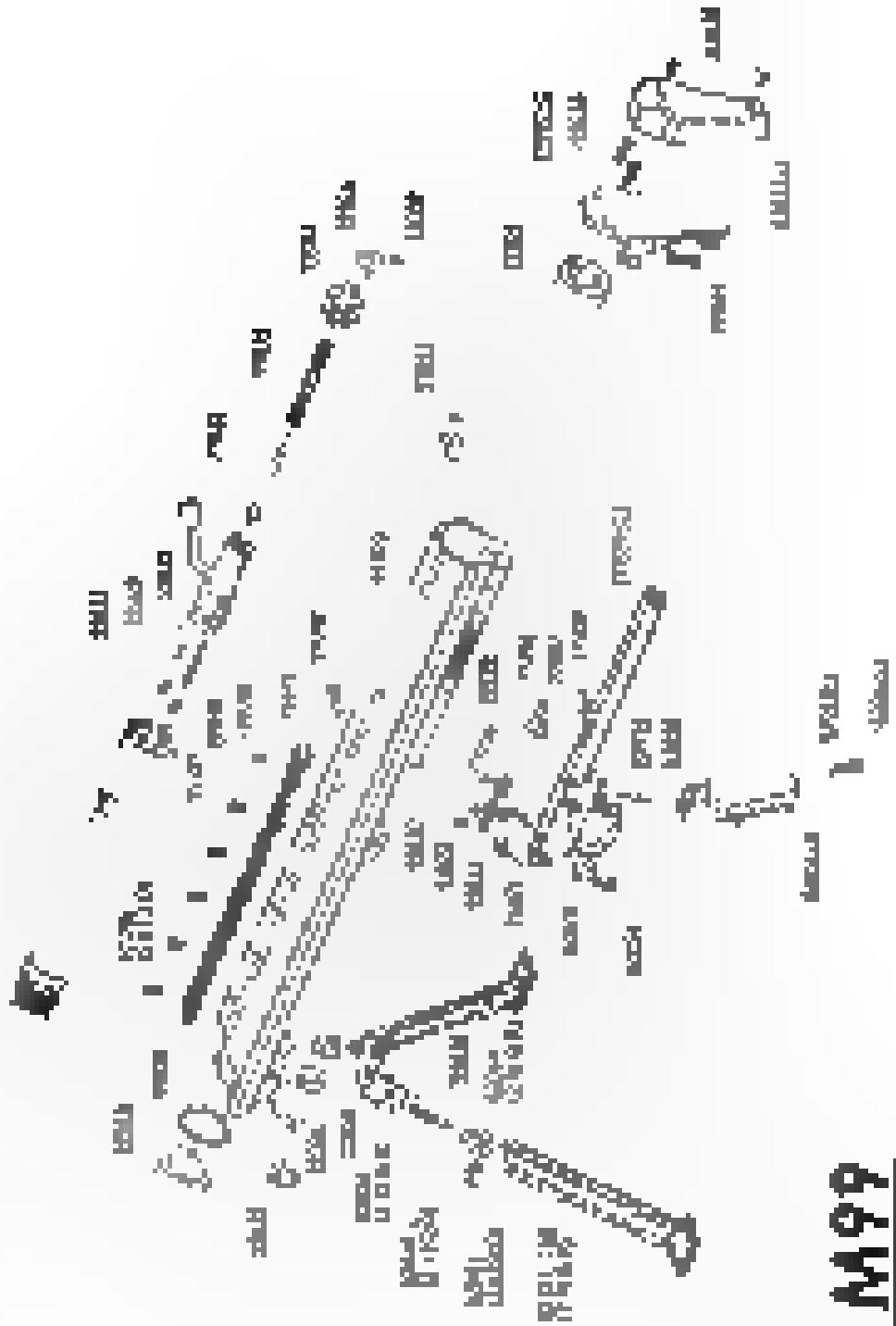
SYMPTOM	CHECK	DIAGNOSTICATION
1. Failure to discharge and leak	1. Bulge or damage to body or discharge chamber	Replace and replace cartridge
2. Firing by drop	1. Faulty primers (Primer discolor = evidence of defective primer lot test)	Replace primers
	2. Cocking lever travel not properly inhibited in bolt	2. Cocking lever travel
	3. Cocking lever is skipping	Check and lubricate cocking lever
	4. Firing pin or firing pin spring broken or damaged	4. Replace complete bolt assembly for repair
	5. Bolt handle not down fully	5. Ensure bolt handle is down fully
3. Firing by hammer	1. Broken or worn hammer	Replace hammer
	2. Broken or worn hammer spring	Replace hammer hammer
	3. Hammer not moving freely	3. Clean internal hammer spring and housing
	4. Body orientation or chamber	4. Clean chamber and ensure orientation is correct
	5. Broken case pins	5. Clean and cleaning rod
4. Failure to fire	1. Broken or worn cylinder	Replace cylinder
	2. Broken or worn cylinder spring	2. Replace cylinder spring
	3. Cylinder not moving freely	3. Clean cylinder cylinder spring and housing
5. Very loud report	1. Faulty or hot gunpowder	Replace gunpowder, cool if hot
	2. Misfire bullet striking	2. Consult with barrel for instructions
	3. Incorrect shooter position	3. Only applicable for barrels

RIFLE M199

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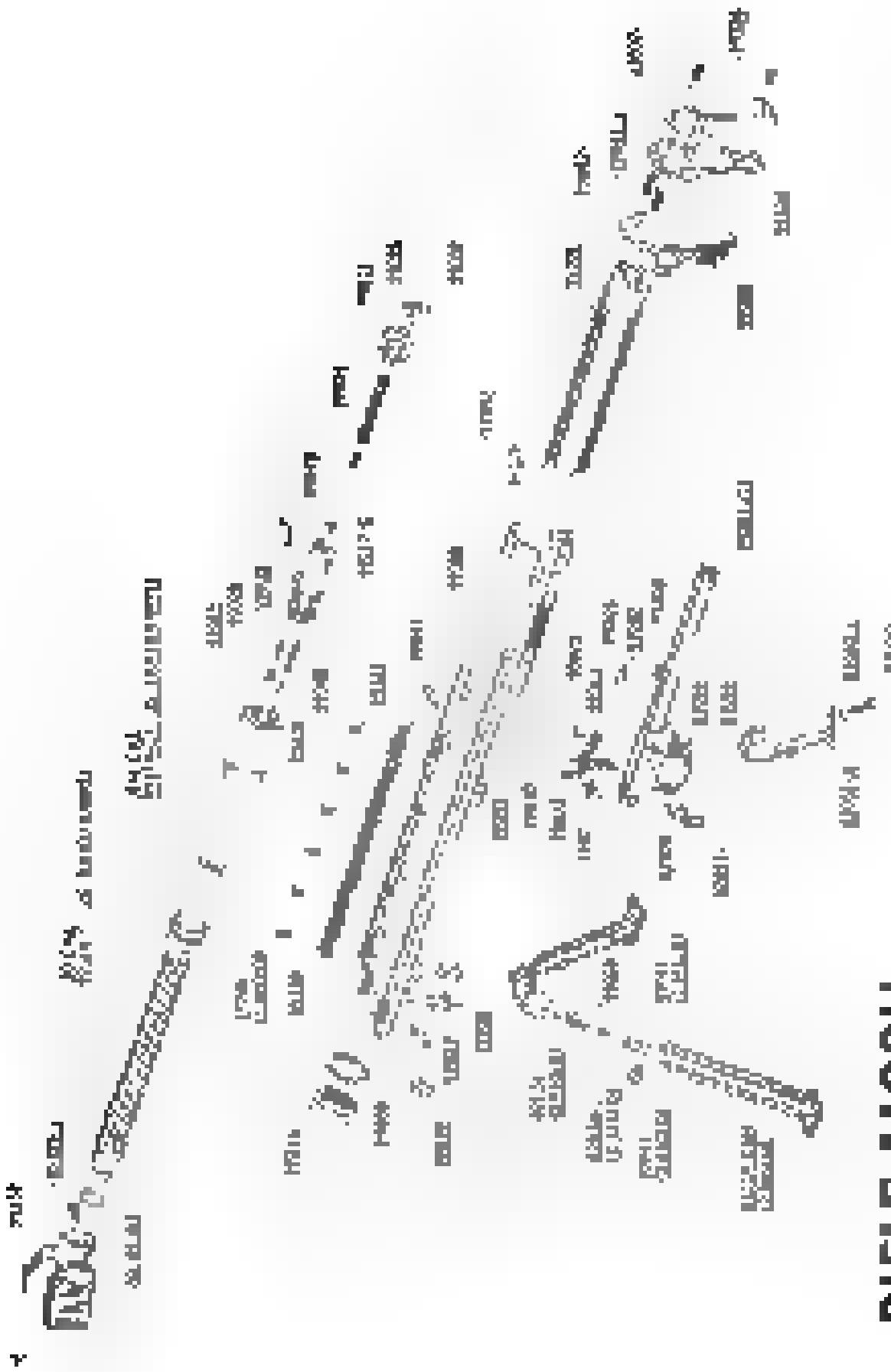


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# RIFLE M99H





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